

**Remarks**

Reconsideration and allowance of this application, as amended, are respectfully requested.

Claims 10, 12, 21, 24, and 27 have been amended. Claims 14-17 and 28 have been canceled without prejudice or disclaimer. Claims 10, 21, and 24 are independent. Claims 10-13, 18-27, and 29 are now pending in the application. The objection and rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein. No new matter has been introduced through the foregoing amendments.

Claim 14 has been canceled to obviate the examiner's objection to the drawings. To advance prosecution, claim 10 has been amended to incorporate a feature of the invention previously recited in claim 12. Thus, instant claim 10 defines a flexographic printing machine that includes, *inter alia*, "a mechanism for effecting evaporation of the solvent from at least one ink transfer roller by flowing a gas onto the ink transfer roller."

Independent claims 21 and 24 have been amended in a manner that parallels the amendment of claim 10. Instant claim 21 defines a flexographic printing machine that includes "a mechanism for effecting evaporation of the solvent from the ink on the ink transfer roller by flowing a gas onto the ink transfer roller so as to provide a second ink mixture having less solvent than the first ink mixture." Instant claim 24 defines a method of adjusting ink

intensity on a print substrate of a flexographic printing machine that includes in pertinent part the step of "effecting evaporation of the solvent from the ink on the ink transfer roller by flowing a gas onto the ink transfer roller so as to adjust the ink mixture ratio." Entry of each of the amendments is respectfully requested.

35 U.S.C. § 102(b) - Dietzell

Claims 10-11, 15, 17, 20-22, 24-26, and 28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,627,346 to Dietzell et al. (hereinafter "Dietzell")

The rejection of claims 10-11, 15, 17, 20-22, 24-26, and 28 under § 102(b) based on Dietzell is respectfully deemed to be obviated. For at least the following reasons, the disclosure of Dietzell does not anticipate Applicant's presently claimed invention.

As indicated above, instant claim 10 defines a flexographic printing machine that includes "a mechanism for effecting evaporation of the solvent from at least one ink transfer roller by flowing a gas onto the ink transfer roller."

Dietzell's apparatus is structurally and functionally different from Applicant's presently claimed machine. As the examiner acknowledges, Dietzell teaches "a mechanism (i.e., heaters) for effecting evaporation of the solvent" (Office Action page 3, numbered paragraph 4) (emphasis added). See also

Dietzell's abstract, where it is disclosed that "heat is supplied to the solvent containing printing ink so as to evaporate a portion of the solvent." That is not Applicant's presently claimed invention, in which the flow of gas provides the mechanism for effecting evaporation of the solvent.

Furthermore, Dietzell teaches evaporating the solvent to "ensure a reliable emptying of the screen-roller cups or the gravure printing cylinder recesses, whereupon, upon cooling the droplets of ink, there is again obtained a higher viscosity which is advantageous for effecting a print with sharp contours and stable forms" (abstract). That too is not Applicant's claimed invention, in which "the intensity of the ink applied to the print substrate [is] adjustable by effecting the solvent evaporation so as to adjust the ink mixture ratio" (claim 10).

Since Dietzell does not meet each feature of the claimed invention, Dietzell does not anticipate the invention defined by Applicant's claim 10. Claims 11 and 20 are allowable because they depend from claim 10, and for other reasons.

Because instant claim 21 includes the feature of "a mechanism for effecting evaporation of the solvent from the ink on the ink transfer roller by flowing a gas onto the ink transfer roller," it too distinguishes over Dietzell. Claim 22 is allowable because it depends from claim 21, and for other reasons.

And, claim 24 defines a method that includes the step of "effecting evaporation of the solvent from the ink on the ink transfer roller by flowing a gas onto the *ink transfer roller*." Claims 25, 26, and 28 are allowable because they depend from claim 24, and for other reasons.

35 U.S.C. § 103(a) – Dietzell and Smith

Claims 12-14, 16, and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dietzell in view of U.S. Patent No. 5,209,160 to Smith.

The rejection of claims 12-14, 16, and 27 under § 103(a) based on Dietzell and Smith is also respectfully deemed to be obviated. For at least the following reasons, the combined disclosures of Dietzell and Smith would not have rendered obvious Applicant's claimed invention.

There is simply no teaching in either Dietzell or Smith that would have led one to select the references and combine them in a way that would result in Applicant's claimed invention.

First, Dietzell and Smith are directed to different technical areas. Dietzell's rotative printing process and apparatus are used in "flexographic printing and indirect gravure (plate) printing" (abstract; column 1, lines 12-14). Smith's "Blower Mounting for Dampening Fluid Evaporator" is "for a lithographic printing press" (abstract; column 1, lines 18-21). And, as one

skilled in the art appreciates, the flexographic and lithographic printing processes are very different from each other.

In the flexographic printing process, the printing plate is an essential element. The printing plate, which forms the printing image, is raised from the rest of the surface of the printing roller. See, for example, the depiction of printing plate 6 and printing roller 5 in Dietzell's Figure 1. The screen roller 3 puts ink only onto the printing plate 6 because of the different height relative to the rest of the printing roller 5.

In the lithographic printing process, however, the printing areas and the non-printing areas of the printing roller are nearly at the same height. The structure of the non-printing area is such that dampening fluid can adhere to it. Dampening fluid does not adhere to the printing areas. After providing the printing roller with the dampening fluid, the ink is brought to the printing roller. The ink adheres only to areas that do not accept the dampening fluid, i.e., the printing areas. Because of the substantial differences between the flexographic and lithographic printing processes, a person having ordinary skill in the art would not combine Dietzell's disclosure related to flexographic printing with Smith's disclosure related to the specific characteristics of the lithographic printing process (see Smith's column 1, lines 18-21, teaching of "dampening fluid" and "lithographic printing press").

Second, even assuming *arguendo* that the disclosures of Dietzell and Smith were combined, one skilled in the art would recognize an inconsistency in the combination. Neither of the two processes described by Dietzell (flexographic and gravure) even uses Smith's dampening fluid. Applicant respectfully submits that the asserted combination is an *improper hindsight reconstruction*.

Furthermore, the objectives mentioned by Dietzell and Smith are different from one another. Dietzell teaches using a mechanism for the evaporation of solvent, whereas Smith teaches using a blower for the evaporation of dampening fluid. Although the ink used in the lithographic printing process also contains solvent, Smith does not teach using the blower to evaporate the solvent. Instead, Smith only teaches using a blower to evaporate dampening fluid within the color deck in which dampening fluid cannot be accepted.

Finally, as indicated above in response to the § 102(b) rejection, Dietzell teaches evaporating the solvent to "ensure a reliable *emptying of the screen-roller cups or the gravure printing cylinder recesses*, whereupon, upon cooling the droplets of ink, *there is again obtained a higher viscosity* which is advantageous for effecting a print with sharp contours and stable forms." Applicant's claimed invention, however, includes the feature of "*the intensity of the ink applied to the print substrate being adjustable by effecting the solvent evaporation so as to adjust the*

*ink mixture ratio*" (claim 10). The asserted combination of Dietzell and Smith simply fails to teach each feature of the claimed invention.

Therefore, the combined disclosures of Dietzell and Smith would not have rendered obvious the machine defined by either of Applicant's presently pending claims 12 and 13. Dependent method claim 27 is allowable for similar reasons.

35 U.S.C. § 103(a) - Dietzell

Claims 18, 19, 23, and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dietzell.

The rejection of claims 18, 19, 23, and 29 under § 103(a) based on Dietzell is similarly deemed to be obviated. For at least the following reasons, the disclosure of Dietzell would not have rendered obvious Applicant's presently claimed invention.

Claims 18 and 19 depend directly from claim 10, claim 23 depends directly from claim 21, and claim 29 depends directly from claim 24. Instant claims 10, 21, and 24 are allowable for the reasons articulated in response to the rejection under § 102(b) based on Dietzell.

Furthermore, there is simply no teaching in Dietzell that would have led one to modify the reference in a way that would result in the invention defined by any of claims 18, 19, 23, and 29. Accordingly, the disclosure of Dietzell would not have

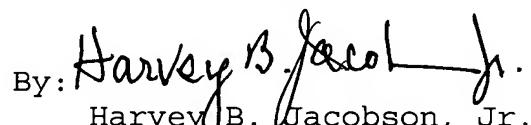
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rendered obvious the invention defined by claims 18, 19, 23, and 29.

In view of the foregoing, this application is now in condition for allowance. If the examiner believes that an interview might expedite prosecution, the examiner is invited to contact the undersigned.

Respectfully submitted,

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